

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

I CLAIM:

1. A golf club head comprising:
5 a main body moulded from a mouldable material having a first lower density;
means for weighting said main body, said weighting means having a second higher density and being positioned within said main body to enhance the striking characteristics of the main body;
10 a shaft receiving bore formed in the main body; and
a shaft anchoring element proximate to said shaft receiving bore, said shaft anchoring element being moulded into said main body and being sized and shaped to receive a golf club shaft therein
wherein said main body may be securely attached to a golf
15 club shaft.
2. A golf club head as claimed in claim 1 wherein said mouldable main body is made from urethane.
- 20 3. A golf club head as claimed in claim 1 wherein said weighting means is made from metal.
4. A golf club head as claimed in claim 1 wherein said weighting means is made from metal and comprises a pair of opposed weights located
25 generally symmetrically about a central axis of said main body, toward lateral side edges of said main body.
5. A golf club head as claimed in claim 4 wherein each weight includes a forward portion and a tapered rearward portion;

6. A golf club head as claimed in claim 5 wherein said weights include means for bonding to said moulded main body.

5 7. A golf club head as claimed in claim 6 wherein said bonding means comprises knurling on at least a portion of the outside of the weight.

8. A golf club head as claimed in claim 1 wherein said shaft anchoring element is metal and is moulded into said main body.

10 9. A golf club head as claimed in claim 8 wherein said shaft anchoring element includes a shaft receiving section for closely receiving a shaft therein to permit the formation of a bond between the shaft anchoring element and the shaft wherein said shaft is secured within said club head.

15 10. A golf club head as claimed in claim 9 wherein said shaft anchoring element includes a roughened surface to facilitate the bonding of said shaft anchoring element into said main body.

20 11. A golf club head as claimed in claim 10 wherein said shaft anchoring element includes an aperture for a set screw.

25 12. A golf club head as claimed in claim 10 wherein said shaft anchoring element is a tube of aluminium, and has an outer surface and an inner surface, wherein said outer surface is knurled to promote adhesion to said moulded main body and said inner surface is smooth to promote adhesion to said shaft.

30 13. A golf club head as claimed in claim 1 further including a front striking face and wherein said front striking face includes an insert.

14. A golf club head as claimed in claim 13 wherein said insert is moulded and is comprised of a material having a different hardness than said main body.

5 15. A golf club head as claimed in claim 14 wherein said insert has a higher hardness than said main body.

16. A golf club head as claimed in claim 15 wherein said insert is formed from moulded urethane and is tapered outwardly from front to back to retain said insert in place.

10

17. A golf club head as claimed in claim 16 wherein said weights are positioned in said moulded main body to extend rearwardly from an interface between said insert and said main body.

15 18. A golf club head as claimed in claim 1 wherein said moulded main body is formed with a front insert receiving pocket.

19. A golf club head as claimed in claim 1 further including aerodynamic ridges which extend from the front of the club head to the rear of the club head.

20

20. A golf club as claimed in claim 20 wherein said main body includes a rearwardly extending dimple on a top surface thereof.

25 21. A golf club head as claimed in claim 1 wherein said moulded main body includes at least one ridge extending parallel to the axis of movement of the club in use extending from a lower surface thereof.

30 22. A golf club head as claimed in claim 22 wherein said moulded main body includes two of said ridges.

23. A golf club comprising a golf club head according to claim 1 to 20, a golf club shaft and a grip.

5 24. A golf club head comprising:
a main body moulded from a mouldable material having a first lower density and a first hardness;
means for weighting said main body, said weighting means having a second higher density and being positioned laterally within said
10 main body to enhance the striking characteristics of the main body when used as a club head.

a shaft receiving bore formed in the main body; and
a moulded face insert having a second hardness which is greater than said first hardness.

15 25. A golf club head as claimed in claim 24 wherein said means for weighing said main body extends rearwardly in said main body from an interface between the main body and the moulded insert.

20 26. A golf club head as claimed in claim 24 wherein said first hardness is in the range of 60 to 75 on the Durometer D scale and said second hardness is in the range of 80 to 90 on the Durometer D scale.

Sub B
25 27. A method of moulding a golf club head comprising:
a) positioning weights within a mould;
b) moulding a main body around said weights, including forming a shaft receiving bore in said main body;
c) forming a front insert receiving pocket on said main body;
and
30 d) inserting an insert into said insert receiving pocket; and

?

28. A method of moulding a golf club head as claimed in claim 27, wherein said step of positioning said weights comprises mounting said weights upon a mounting pin to securely position the weights in the mould.

5 29. A method of moulding a golf club head as claimed in claim 27, wherein said step of forming said front insert pocket includes moulding said front insert pocket in a first moulding step.

10 30. A method of moulding a golf club head as claimed in claim 27, wherein said step of forming said front insert pocket includes machining said insert pocket into a front face of said moulded main body.

15 31. A method of moulding a golf club head as claimed in claim 27, wherein said step of inserting said insert into said insert receiving pocket comprises moulding said insert into said front insert receiving pocket.

20 32. A method of moulding a golf club head as claimed in claim 27, further including a step of finishing said club face which step includes machining a desired loft and grooves into the front face of the moulded insert and club face.

add B?